

Complete Streets:

A comprehensive policy approach to
encourage active living

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Research Summaries

Active Living RESEARCH
Investigating policies and environments to support active transportation
Updated February 2009

Designing for Active Transportation

Physical activity causes numerous physical and mental health benefits, and is associated with lower rates of chronic disease. Americans lead an increasingly sedentary life, and transportation systems often discourage walking, biking, and other active modes. Transportation and policy makers want to know how to make it easier for people to get up and get active.

This research summary gives a snapshot of the current state of knowledge on "walkable" or "bikable" environments and what works to make it easier to get up and get active. It covers the current state of knowledge on "walkable" or "bikable" environments and what works to make it easier to get up and get active. It covers the current state of knowledge on "walkable" or "bikable" environments and what works to make it easier to get up and get active.

RESEARCH SUMMARY

Planning, community design, and health behavior studies consistently find that the most comprehensive and effective strategies to walk or bike to work, school, and other destinations are built addresses whether people have, take, and use a mode to get where they are going.

Proximity and connectivity creates walkable neighborhoods

Many factors determine whether it is possible to walk or bike to destinations near home. The best strategies to walk or bike to destinations nearby to work, school, and other destinations are built addresses whether people have, take, and use a mode to get where they are going.

Proximity is the distance between the origin and destination. Proximity is usually measured through the use of home, school, and other destinations. Distance is usually measured through the use of home, school, and other destinations. Distance is usually measured through the use of home, school, and other destinations.

Connectivity is the degree to which destinations are connected to each other. Connectivity is usually measured through the use of home, school, and other destinations. Distance is usually measured through the use of home, school, and other destinations.

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Designing for Active Recreation

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RESEARCH SUMMARY

Being physically active is more than just a matter of personal choice. A growing number of studies show that people in sedentary lifestyles are more likely to be physically active in their future lives.

Better access to facilities encourages activity

Several studies have found that people who live in areas with easy access to parks, trails, and other recreational facilities are more likely to be physically active. These findings suggest that better access to recreational facilities may encourage people to be more active in their future lives.

- The CDC determined that walking and bicycling are the most popular forms of physical activity.
- People who live in areas with easy access to parks, trails, and other recreational facilities are more likely to be physically active.
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Designing to Reduce Childhood Obesity

Childhood obesity is a growing public health problem. Obesity has increased among children and adolescents, and is associated with higher rates of chronic disease. Transportation and policy makers want to know how to make it easier for children to get up and get active.

This research summary gives a snapshot of the current state of knowledge on "walkable" or "bikable" environments and what works to make it easier to get up and get active. It covers the current state of knowledge on "walkable" or "bikable" environments and what works to make it easier to get up and get active.

RESEARCH SUMMARY

Environmental barriers to healthy eating and activity

A number of studies have found that people who live in areas with easy access to parks, trails, and other recreational facilities are more likely to be physically active. These findings suggest that better access to recreational facilities may encourage people to be more active in their future lives.



Changing the environment to improve children's nutrition

More access to healthy foods can lead to better choices for children and reduce their risk of obesity. Transportation and policy makers want to know how to make it easier for children to get up and get active.

- Provide or facilitate for schools, child care, and other organizations to offer healthy food options.
- Reduce barriers to school nutrition programs.
- Use the school nutrition program to offer healthy food options.
- Decrease opportunities for physical activity during school hours.
- Competition for healthy food that is not sold in schools.

Designing to *Reduce Childhood Obesity*

- More access to healthy foods
- Safe places to walk and play
- Reduced screen time



Safe Routes to School

- Distance, traffic and crime are all barriers to children walking to school.
- More children walk to school where there are sidewalks.



Koplan, J.P., *CDC* 2004

Ewing, R. *Transportation Research Record* 2005

Improving safety increases activity



- Children were physically active for an extra 49 minutes in safer neighborhoods.
- Children were half as likely to be injured by a car if they lived within a block of a speed hump.

Molnar, B.E., *Am. J. of Health Promotion*, 2004

Tester, J.M. *Am. J. of Public Health*, 2004

Older women take more steps daily if more places are near home



Photo: Michael Ronkin, ODOT

Access to facilities

- Creating and improving places to be active can result in a **25 percent** increase in the portion of people exercising 3 times a week.

CDC, Guide to Community Preventive Services, 2002

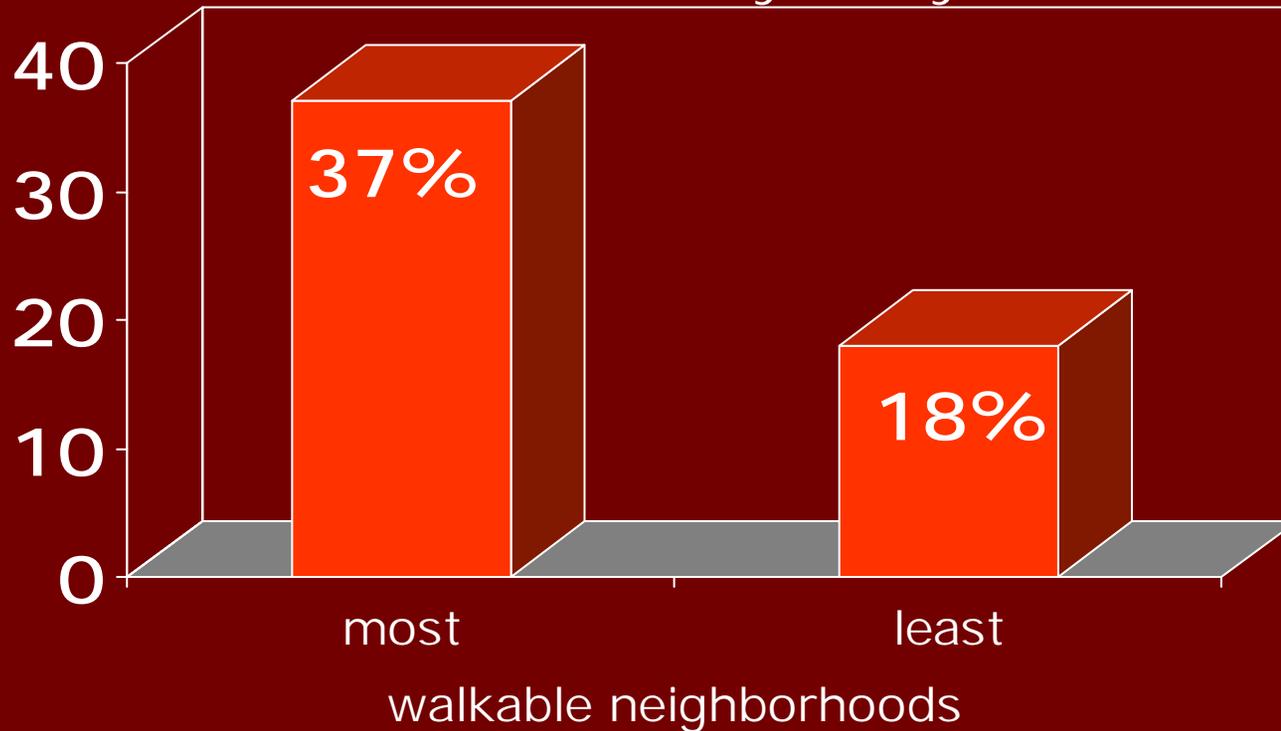
- The closer people lived to a bikeway, the more likely they were to use it.

*Troped, P.J.
Preventive Medicine 2001*



Access to facilities helps people get enough activity.

Percent residents getting
30 min. activity a day



Walkable neighborhoods have a positive impact on health

On average, walkable neighborhoods encourage 15-30 extra minutes of walking per week...
enough to lose a pound a year.





Complete the Streets

IOM Report

Built Environment Strategies:

- **Prioritize capital improvement projects** to increase opportunities for physical activity in existing areas.
- **Revise comprehensive plans, zoning and subdivision ordinances**, and other planning practices to increase availability and accessibility of opportunities for physical activity in new developments.
- **Improve the street, sidewalk, and street-crossing safety of routes to school.**

What is a Complete Street?

Pedestrians, bicyclists, motorists and transit riders of all ages and abilities are able to safely move along and across a complete street.

What is a Complete Streets policy?

A complete streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.

About one-third of Americans do not drive:

- 21% of Americans over 65.
- All children under 16.
- Many low income Americans cannot afford automobiles.

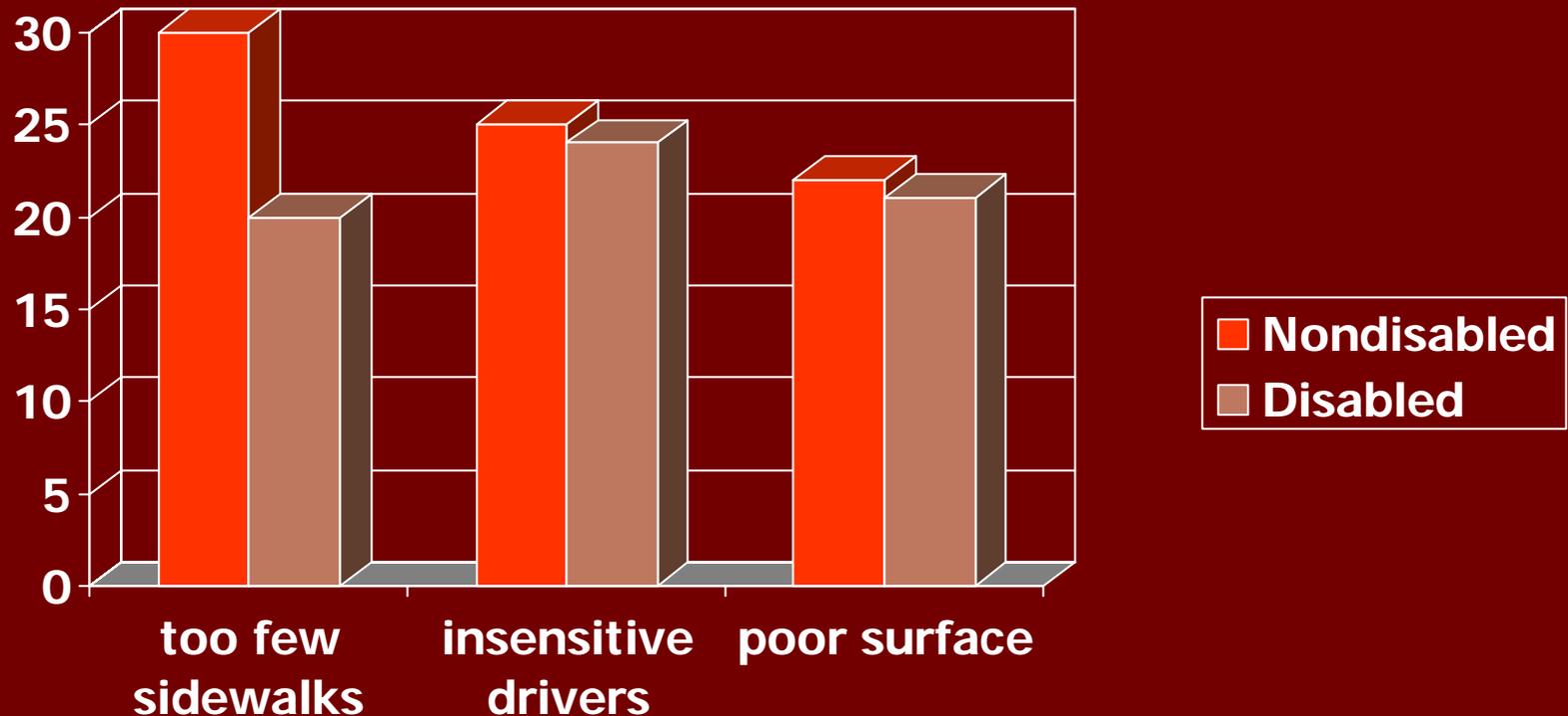


Streets are inadequate

- 25% of walking trips take place on roads without sidewalks or shoulders
- Bike lanes are available for only about 5% of bike trips

Top pedestrian complaints are incomplete streets

Percent of peds experiencing problem



2002 Natl. Transportation
Availability & Use Survey

Streets are inadequate:



No sidewalks

Streets are inadequate:



Too narrow to share with bikes

Streets are inadequate:



Too dangerous to cross on foot

Streets are inadequate:



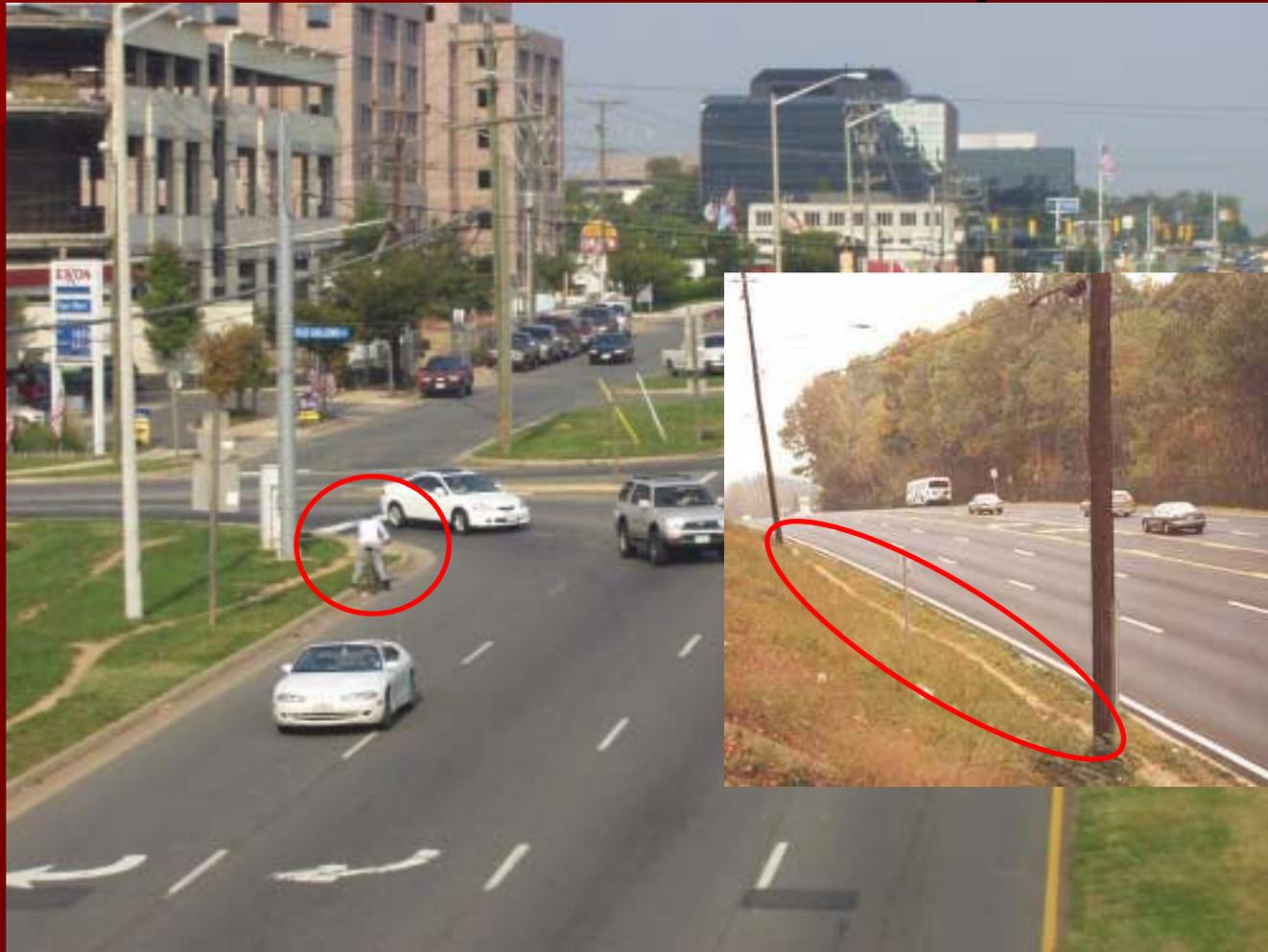
Uninviting for bus riders

Streets are inadequate



No room for bikes or pedestrians

Streets are inadequate



No room for people

USDOT Recognizes the Need

2000 USDOT Recommended Policy:

“Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:”

US DOT Design Guidance

Exceptions:

- Where bicyclists and peds are prohibited by law,
- 'Excessively disproportionate' costs (20%)
- Absence of need

US DOT Design Guidance

- Include paved shoulders on rural roads; avoid rumble strips
- Sidewalks, street crossings, etc. shall allow safe pedestrian travel, including for people with disabilities

US DOT Design Guidance

- Additional steps:
 - Anticipate future demand (bridges)
 - Address the need to cross corridors (intersection & interchange design)
 - Approve exceptions at a senior level
 - Design to best available standards

US DOT Design Guidance

- Read *Accommodating Bicycle and Pedestrian Travel*

<http://www.fhwa.dot.gov/environment/bikeped/design.htm>

Most states do not follow this guidance.



Thunderhead Alliance Complete Streets Report

- Most policies have been put in place since 2001, with 5 new policies put in place in 2004.
- Most cover only bicycle and pedestrian accommodation.

Existing policies

	State	County	MPO	City
Public: legislation, ordinance, resolution	OR, FL, RI, NC, SC	DuPage, IL. Sacramento, CA; San Diego CA	Columbus, OH	Columbia, MO Sacramento, CA
Internal: Policy, plans, manuals	TN, IL, CA, AZ, KY, VA, PA, <i>ID</i>		Cleveland, OH Bay Area, CA Knoxville, TN St. Joseph, MO <i>St.</i> <i>Petersburg,</i> <i>FL</i>	Boulder, CO Santa Barbara, CA San Diego, CA <i>Ft. Collins, CO</i> <i>W. Palm</i> <i>Beach, FL</i> <i>Charlotte, NC</i>

Creating complete streets



Complete Streets and Safety

FHWA review of safety literature found:

- Sidewalks
- Raised medians
- Better bus stop placement
- Traffic calming
- Treatments for disabled travelers

All improve pedestrian safety.

The many types of Complete Streets



A commercial arterial w bike lanes & sidewalks

The many types of Complete Streets



A quiet residential street

The many types of Complete Streets



A street school children can safely cross

Completing the Streets



Completing the Streets: Local Action

67 % of Santa
Barbara's (CA)
arterials have bike
lanes or paved
shoulders



Completing the Streets: Local Action

Boulder, Colorado is building all arterials as multi-modal corridors for auto, pedestrian, bicycle, and transit.



Completing the Streets: some new campaigns

- Illinois
- Washington
- Colorado
- St. Louis, MO
- Chicago
- Roswell, GA

Harkin Complete Streets Amendment

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1 “(A) IN GENERAL.—Each State transpor-
2 tation department shall adopt a statement of
3 policy ensuring that the needs and safety of all
4 road users (including the need for pedestrian
5 and bicycle safety) are fully integrated into the
6 planning, design, operation and maintenance of
7 the transportation system of the State transpor-
8 tation department.

Harkin Complete Streets Amendment

- May 11: Came up short in floor vote, 53 to 44
- First time ever debated in Congress
- Now part of Senator Harkins' "HeLP America Act"

National Complete the Streets Steering Committee

- AARP
- America Bikes
- America Walks
- American Society of Landscape Architects
- American Planning Association
- Institute of Transportation Engineers
- League of American Bicyclists
- National Parks Conservation Association
- Smart Growth America
- Surface Transportation Policy Project
- Thunderhead Alliance
- US Access Board

National complete streets steering committee

- Federal policy in TEA-3 & model policy
- Conference presentations
- Web portal: www.completethestreets.net
- Connect with advocacy campaigns



For More Information

Thunderhead Alliance

www.thunderheadalliance.org

America Bikes

www.americabikes.org

Coming soon!

www.completethestreets.net

